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ALUMINIUM
IN ARCHITECTURE
AND DECORATION

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ALUMINIUM IN ARCHITECTURE & DECORATION



THE BRITISH ALUMINIUM
COMPANY, LIMITED
HEAD OFFICE
ADELAIDE HOUSE KING WILLIAM STREET
LONDON, E.C. 4 ENGLAND.

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ALUMINIUM IN ARCHITECTURE & DECORATION

THE following pages show a selected number of examples of the uses of aluminium and its alloys for architectural and decorative purposes. A superficial study indicates the wide variety of purpose, the difference in style and treatment possible, and the number of different forms in which these metals are used.

Aluminium is unique amongst the metals as regards this versatility. It is used as castings, sheet, extruded sections, tubes and forgings. Its natural surface can be finished by polishing, frosting, or scratch brushing. It can be given a variety of finishes by the different anodising processes, which provide a highly protective surface glaze, and at the same time have their own decorative value. Coloured finishes, not to be compared with lacquered effects obtained on other metals, are provided by dyed anodising — a process which gives a brilliant transparent colour without the possibility of blistering, flaking or chipping.

The addition of certain alloying metals to pure aluminium provides alloys which are harder and stronger but retain the attractive colour and the high resistance to corrosion of the parent metal. On this subject it may be remarked that very many aluminium alloys are used in industry, in general, but these are not all suitable for architectural purposes. Advice on the choice of alloy for any particular purpose will gladly be supplied by the Company.

The principal forms in which the metals are used can be listed as follows, though in the compass of an introduction to a book of illustrations this summary must necessarily be very abridged :

SHEET.

Except in special circumstances where high strength is necessary, pure aluminium is used for all sheet metal applications. It is supplied in various tempers ranging from hard to soft, and the choice of temper depends on the degree of forming necessary. Soft aluminium will withstand an astonishing degree of deformation without showing a tendency to split, and the harder forms of aluminium are capable of withstanding a more intense degree of shaping than the equivalent tempers in other materials.

IO 88-1314536 TCF

Spinning, pressing and hand beating are all effectively carried out with aluminium sheet. The uses of sheet include doors, panelling, lift enclosures, and many other structures too extensive for specification in detail. Many of these applications will be recognised in the illustration pages which follow.

Flat panels and simple structural work can often conveniently be carried out in aluminium faced plywood, of which there are several makes in the market.

EXTRUDED SECTIONS.

The facility with which aluminium and its alloys can be extruded is one of its principal features, and it is possible to obtain long straight lengths of almost any section with great facility. The Company has nearly 4,000 extrusion dies so that there is a wide choice of standard section sufficient for most requirements. Special shapes can be produced at quite small cost.

For the most part the extruded material is of pure aluminium which is soft and readily worked. Harder alloys which can be recommended where increased strength is necessary are : BA/24, BA/25, D2, and Birmabright. All of these can be anodised well and all are readily weldable.

The principal uses for extruded sections are :

(1) WINDOWS.

Here the lightness of the metal is a decided advantage, the cost is greater than for steel windows, but should be less than for bronze. Anodising is usual as a finish, especially for outside windows.

(2) SHOW CASES.

This is a similar application to windows, though the conditions of service are not so severe and pure aluminium can often be used in place of the alloy more usual with windows. Metal covered wooden sections which are readily obtainable in aluminium are also largely used for this kind of work.

(3) HAND RAILS AND BALUSTRADES.

The white but soft colour of aluminium is attractive for this kind of work, as also is the facility of the metal for shaping. For this latter reason pure aluminium is principally chosen, since the necessary rigidity may be provided by an iron backing hidden in a recess in the aluminium section. However, such alloys as Birmabright are also quite commonly used for these purposes.

(4) GRILLE WORK.

Flat, round or square bars of pure aluminium provide an excellent medium for hand formed grilles. Often such work can be formed cold, but heating to 300° C./400° C. will not harm the metal and makes bending still easier. Riveting or welding are both used for assembling.

(5) ROOF GLAZING BARS.

The lightness of aluminium, coupled with its high resistance to corrosion, makes it very satisfactory for this particular purpose, and with a suitably designed section the cost is competitive with that of lead covered steel glazing bars. Aluminium has particular advantages where special corrosive conditions occur, as, for example, in breweries.

(6) WINDOW SILLS, counter edgings, stair nosing, decorative strip work and miscellaneous constructional frame work, as in lift cages, are all commonly made of aluminium or aluminium alloy extruded sections.

CASTINGS.

Aluminium castings are used as decorative plaques, grille work, hand-rail supports, light fittings, seat pedestals and a host of similar details. Pure aluminium does not cast so easily as aluminium alloys, and the latter are almost always employed. Some care must be taken in the choice when anodising is required, for only a few of the casting alloys will take a satisfactory finish. Alloys recommended are Birmabright, BA/23 and AERAL. The silicon alloys (BA/40.J and BA/40.D) are excellent for casting, but anodise with a dark colour.

TUBING.

Pure aluminium tubing or tubes of medium strength alloy such as BA/60.A are used for hand-rails and decorative features. Coloured anodised tubing is particularly attractive and is employed in door furniture and railings.

The working of the metal and its alloys in these different forms is familiar to all the chief craftsmen in the industry. There is no difficulty in obtaining such accessories as bolts, screws and rivets in aluminium, so that the architect and designer are not limited in scope by difficulties in obtaining supplies of any kind.

The technical staff of the British Aluminium Company Ltd. are always ready to advise on any matters relating to the properties and uses of the metal.



Gerrard Street Post Office and Telephone Exchange, Gerrard Street, London.
Architect : F. A. Llewellyn, Esq., O.B.E., H.M. Office of Works. Contractors : Cashmore Art Metal Workers, Williams & Williams, Ltd.
In this building aluminium alloy is employed for window framing, doors, ornamental panels, fanlight grilles, spandrels (between second and third floors), show-cases, telephone boxes, letter boxes and entrance sign.
The work throughout is anodised, silver finish.

Gerrard Telephone
Exchange.

Folding doors and win-
dow frames in anodised
aluminium.



Gerrard Telephone
Exchange and
Post Office.

Post box surround,
doors and window
frame in anodised alu-
minium.

Gerrard Telephone
Exchange.

Grille and sign in anodised
aluminium over main en-
trance.



Gerrard Telephone
Exchange.

Grille in anodised alumi-
nium over another entrance
door.



Gerrard Telephone
Exchange.

Window frames and fanlight
frames in anodised aluminium.



Gerrard Telephone
Exchange.

Hopper vent windows with ano-
dised aluminium frames.



Arlington House, St. James's, London.

Architect : Michael Rosenauer, Esq., L.R.I.B.A. Contractors : Brown & Tawse, Ltd., Cashmore Art Metal Workers, George Johnson Bros., Williams & Williams, Ltd.

An instance of the extensive use of aluminium alloy in an important residential building. Window frames have anodised aluminium surrounds. Shop fronts, doors, grilles, marquise and other metal-work, including the railing of roof gardens and balconies are of aluminium, silver anodic finish.



Arlington House.

Main entrance, canopy, entrance doors, shop fronts and other metalwork in aluminium, silver anodic finish.



Arlington House.

Side door of main entrance, door frames and grilles in aluminium, silver anodic finish.



Simpson (Piccadilly) Ltd.

Balustrading with outer rail and framing of anodised aluminium. The inner stair rail has aluminium wall brackets. The central pillar, and the lighting fittings which it carries, are also of aluminium.



Simpson (Piccadilly) Ltd., London.

Architect : Joseph Emberton, Esq., F.R.I.B.A. Metalwork : J. Starkie Gardner, Ltd., C. Harvey & Co., G. H. Morton & Co., Fredk. Sage & Co., Ltd.

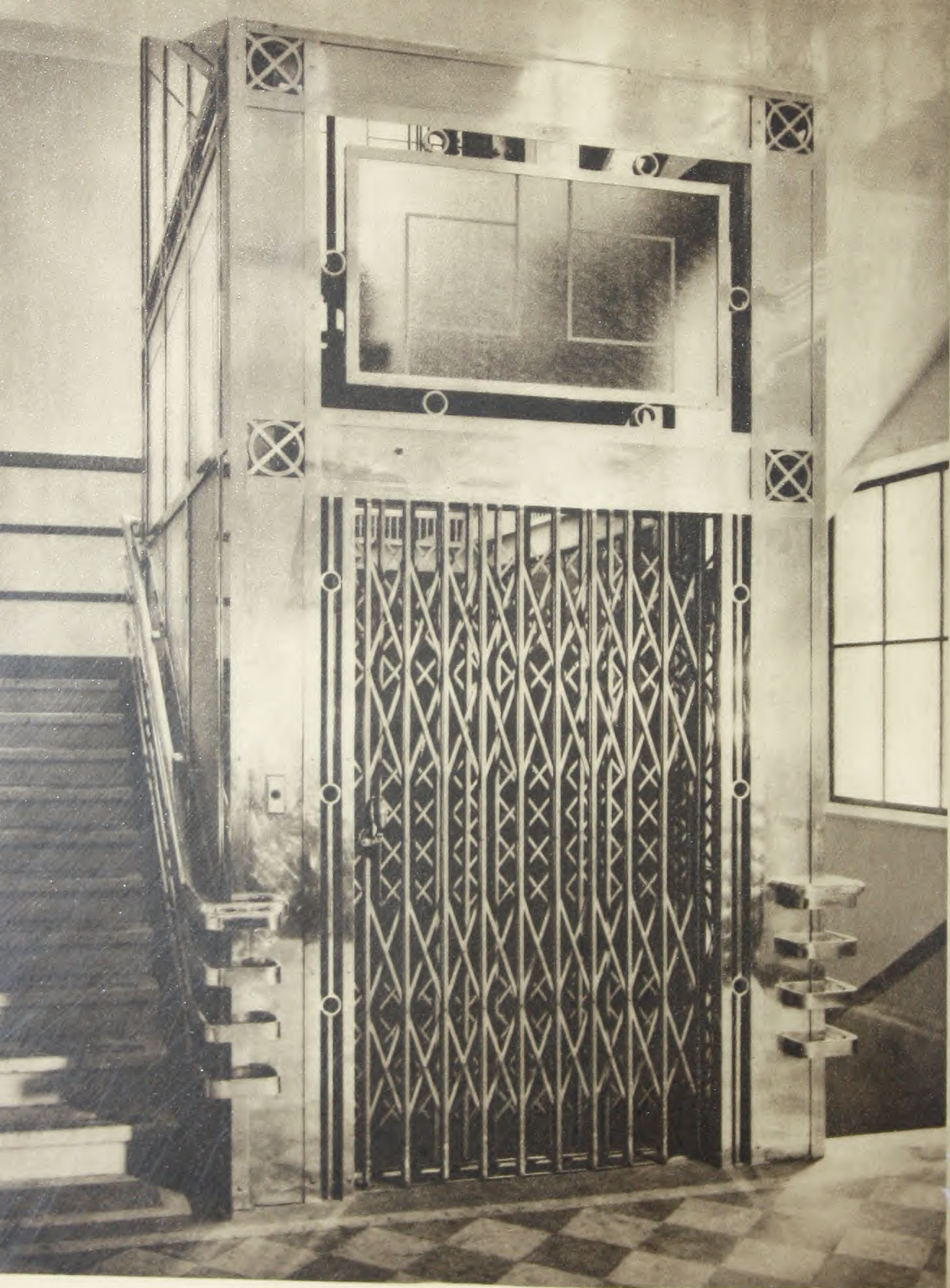
Balustrading, lift enclosure surrounds and other metalwork in aluminium, silver anodised finish.



Simpson (Piccadilly) Ltd. Boot and Shoe Dept.
Service fittings have handles of aluminium, silver anodic finish.

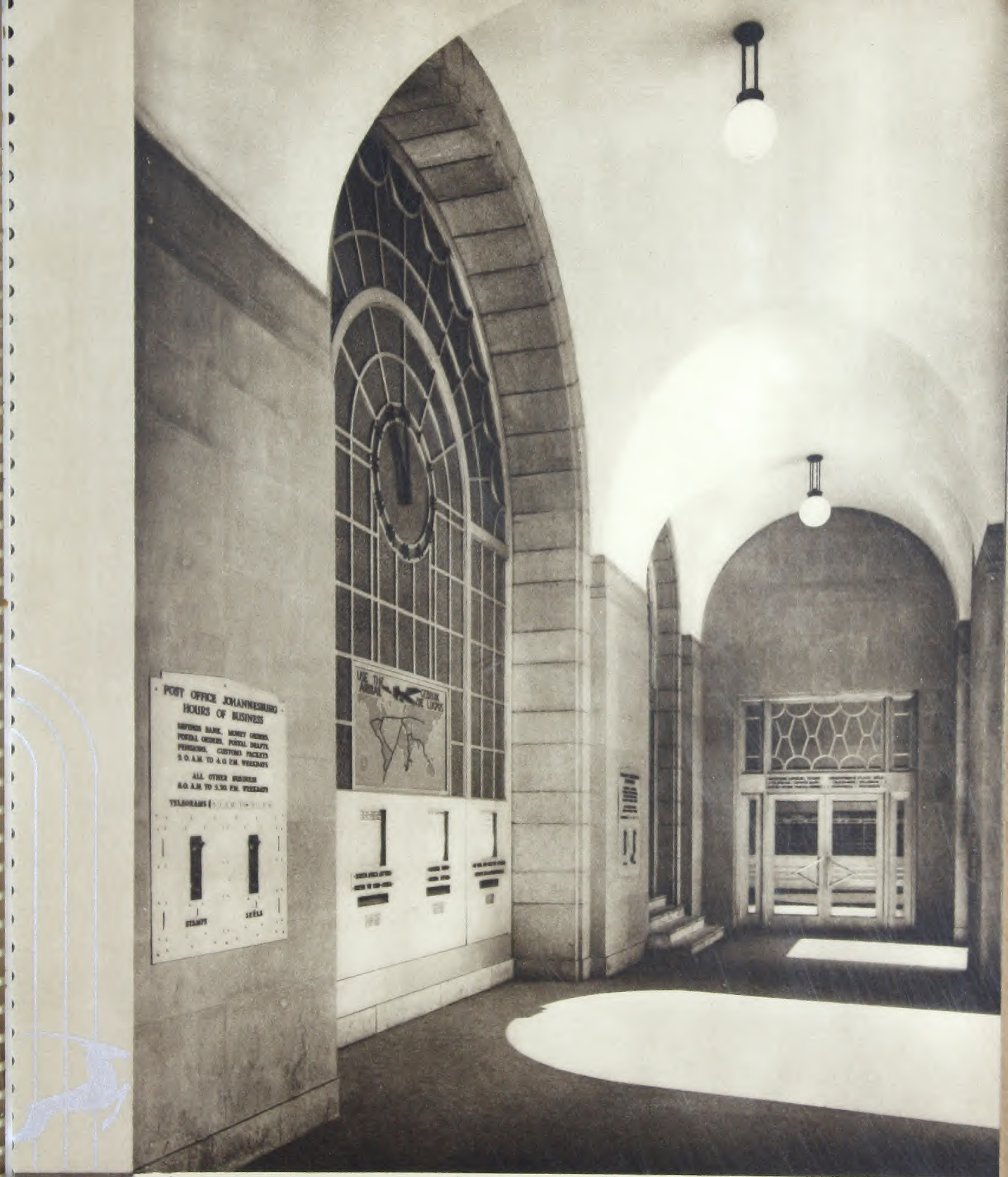
Simpson (Piccadilly), Ltd. Snack Bar.
Screen framing and other metalwork in aluminium, silver anodic finish.





Edinburgh Royal Infirmary.

Architect: Thos. W. Turnbull, Esq., F.I.A.A., M.I.Struct.E. Metalwork: Chas. Henshaw, Esq.
Lift enclosure and balustrade of aluminium.



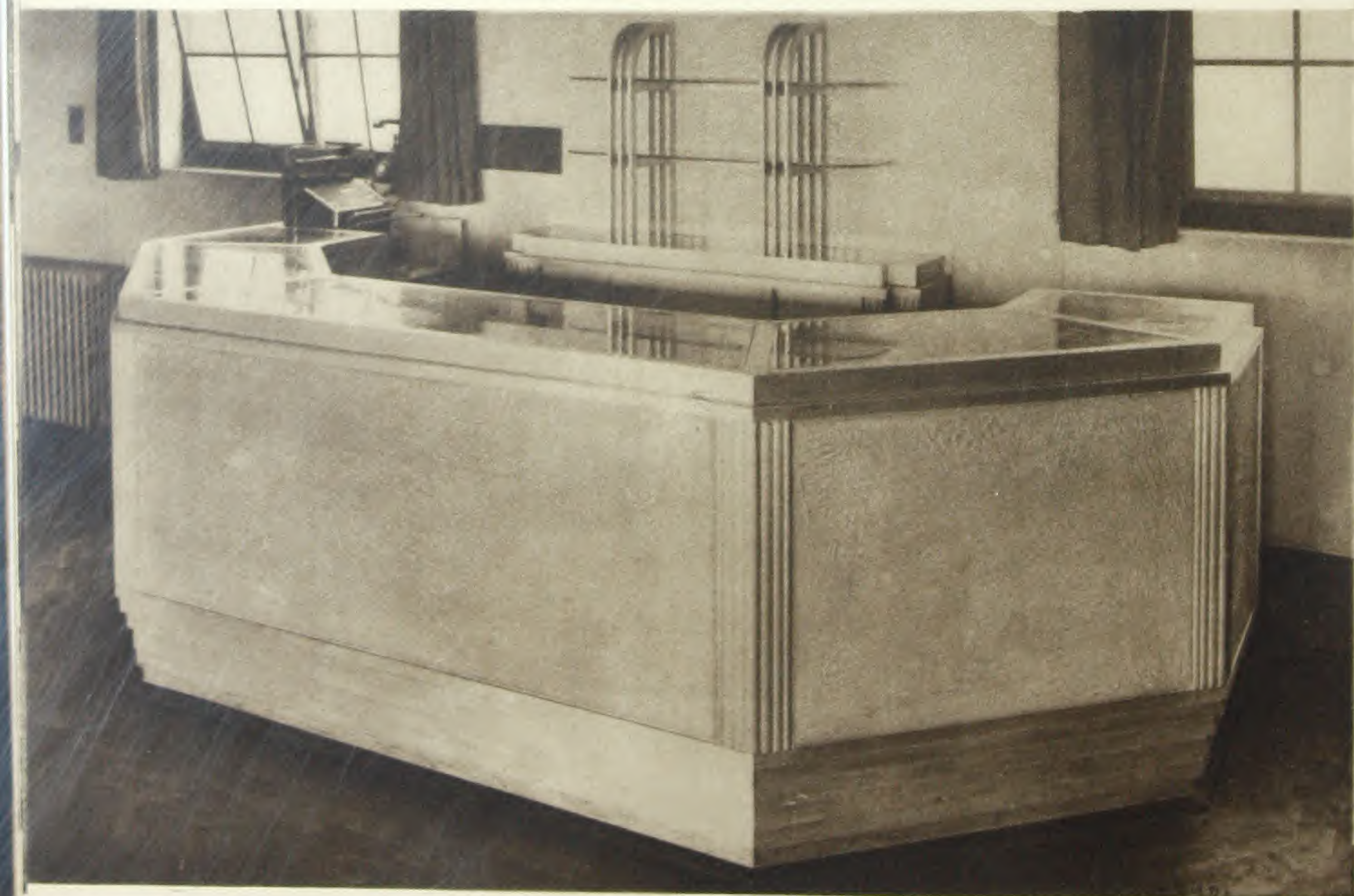
Johannesburg General Post Office.

Architects: Public Works Department, Pretoria. Contractors: F. Sage & Co. (S.A.) Ltd.

Doors, screens, grilles, hand railing and other metalwork in this building is of "Birmabright" aluminium alloy with a fine scratch brush finish. The illustration shows the main entrance vestibule, looking west, with large clock window on left in second arch, and doors to private boxes. In the distance are doors and screens to main concourse, all in "Birmabright" (Birmabright, Ltd.)



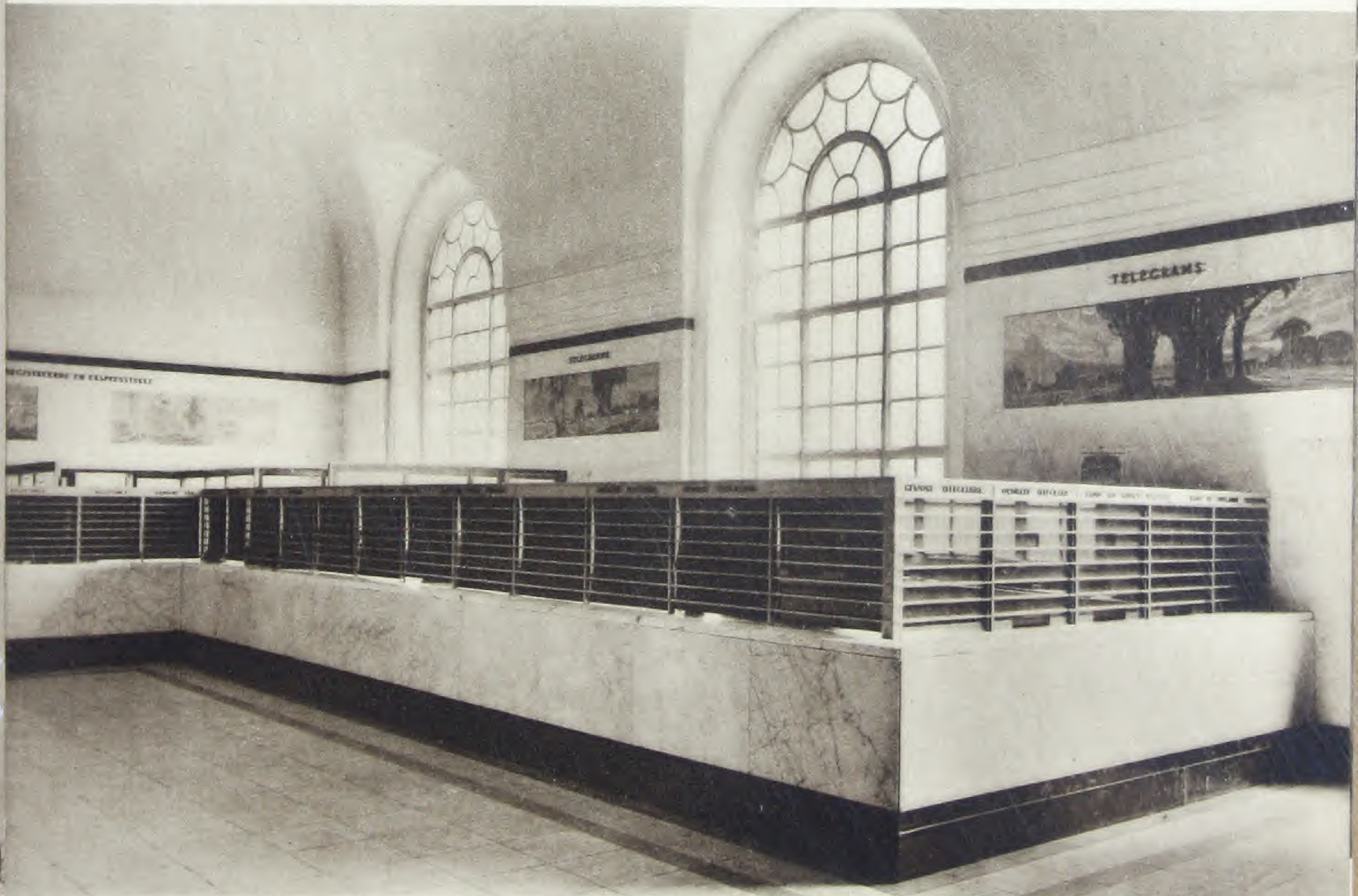
Johannesburg General Post Office.
Public writing tables, east concourse. "Birmabright" aluminium alloy used for upper screens, divisions lighting panels and slots for forms.



Johannesburg General Post Office.
Service counter in staff dining room, fifth floor. Skirting, reeded pilaster and back fixture in "Birmabright" aluminium alloy.



Johannesburg General Post Office.
East concourse. Metalwork in "Birmabright" aluminium alloy includes doors to telephone booths, main entrance screen from main vestibule, and hands of electric clock.



Johannesburg General Post Office.
West concourse, part view. Windows and grilles in "Birmabright" aluminium alloy.



R.M.S. "Queen Mary."

Tourist cocktail bar,
showing inlaid alumi-
nium strip ornamenta-
tion.

R.M.S. "Queen Mary."

Transport and Airways
Office.

Two panels, designed by
Maurice Lambert, Esq.,
cast in "Aeral" alu-
minium alloy by Wil-
liam Mills Ltd., anodised
by Alumilite Ltd.





R.M.S. "Queen Mary."

Owners : Cunard White-Star Ltd. Builders : John Brown & Co., Ltd. Architects : Mewes and Davis, A.R.A., FF.R.I.B.A., and Benjamin W. Morris, Esq., F.I.A.A.

Observation lounge and cocktail bar on promenade deck. Balustrade in "Birmabright" aluminium alloy by the designers, Messrs. R. Pryse Roberts and Austin Crompton Roberts at the studios of Forge Ltd.



Bank Misr, Cairo.
Architect : M. Ansonio Bey Lasciac. Metalworker : Ercole Ferruzzi.
"Birmabright" balustrade



Bank Misr, Cairo.

Architect : M. Antonio Bey Lasciac. Metalworker : Ercole Ferruzzi.
Lift doors and balustrade in "Duralumin" and "Birmabright"

Newcastle
Co-Operative
Society.

Lift doors cast in alu-
minium alloy by William
Mills Ltd.



Entrance door of Bank
Misr, Cairo, executed
in Duralumin with cast-
ings of Birmabright.

Architect:
M. Antonio Bey Lascier.

Metallworker:
Ercole Ferruzzi.

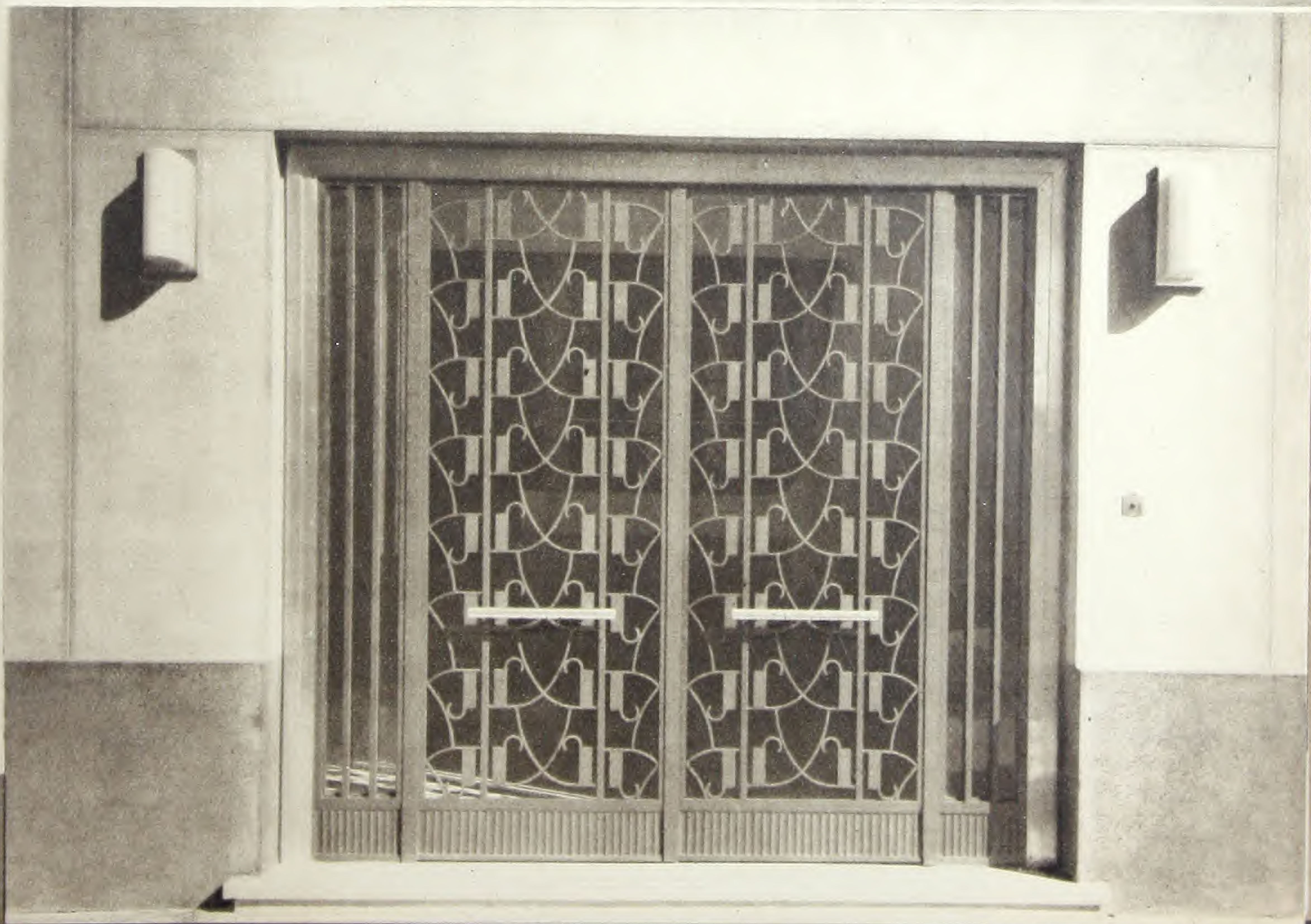
Lift cage grille, lift door
and handrail in aluminium
alloy at the Magasin V.
D'Elia and Figli.

Metalworkers: Berte & Gaeta.



Door of aluminium alloy at
the immeuble of Mr. C.
Buzzino.

Acknowledge Berte & Gaeta





Boots the Chemists

Door and screen framing in aluminium, silver anodic finish. Expansion joints in floor are of aluminium strip.

Boots the Chemists,
Central Offices,
Stamford Street,
London.

Architects: Henry Tanner,
F.F.R.I.B.A.

Contractors: Holloway Bros.
(London), Ltd.

Sub-Contractors:
Comyn Ching Co. Ltd. and
Eric Munday & William
Pickford Ltd.

Door and screen framing
of aluminium, silver
anodic finish. Alu-
minium also used for
expansion strips in wall.





United India Life Assurance Co. Ltd.

Architects : Ballardie, Thompson & Matthews.

Interior of building showing the counter made up of aluminium bars and aluminium sheet.



Gosforth, Newcastle-on-Tyne. Residence.

Architects : Archibald & Archibald, F.R.I.B.A. Metalworkers : M. Aynsley & Sons, Ltd.
Balustrade and alcove gates in "Birmabright" aluminium alloy.



Havana Cinema, Romford.

Architects : Leslie H. Kemp and Tasker, F.I.A.A., F.R.I.B.A. Metalwork : Garton & Thorne, Ltd.

Main staircase, with balustrade, hand railings and side rails of aluminium, silver anodic finish. Door grilles and auditorium grilles in this cinema are also of anodised aluminium.



Girls' Hostel, St. Ann's Hill,
Nottingham.

Architects : Bromley, Cartwright and
Waumsley. Metalwork : The Dryad
Metal Works.

Staircase balustrade with handrail
of polished "Birmabright" alu-
minium alloy.

Prince of Wales Theatre,
Birmingham.

Architect : David A. Lumsden, Esq.,
A.R.I.B.A.
Metalwork : Birmingham Guild Ltd.

Staircase railing of "Birmabright"
aluminium alloy.



Imperial Typewriter
Co., Ltd.,
Leicester.

Metalwork :
The Dryad Metal Works.

Balustrade in "Birma-
bright" aluminium alloy.



Marks & Spencer Ltd.,
Dundee.

Metalwork :
The Brent Metal Works.

Balustrade in aluminium.





De La Warr Pavilion, Bexhill-on-Sea.

Architects : Mendelsohn & Chermayeff. Metalwork : J. Starkie Gardner Ltd.

Entrance hall with balustrade hand railing of polished "Birmabright" aluminium alloy.

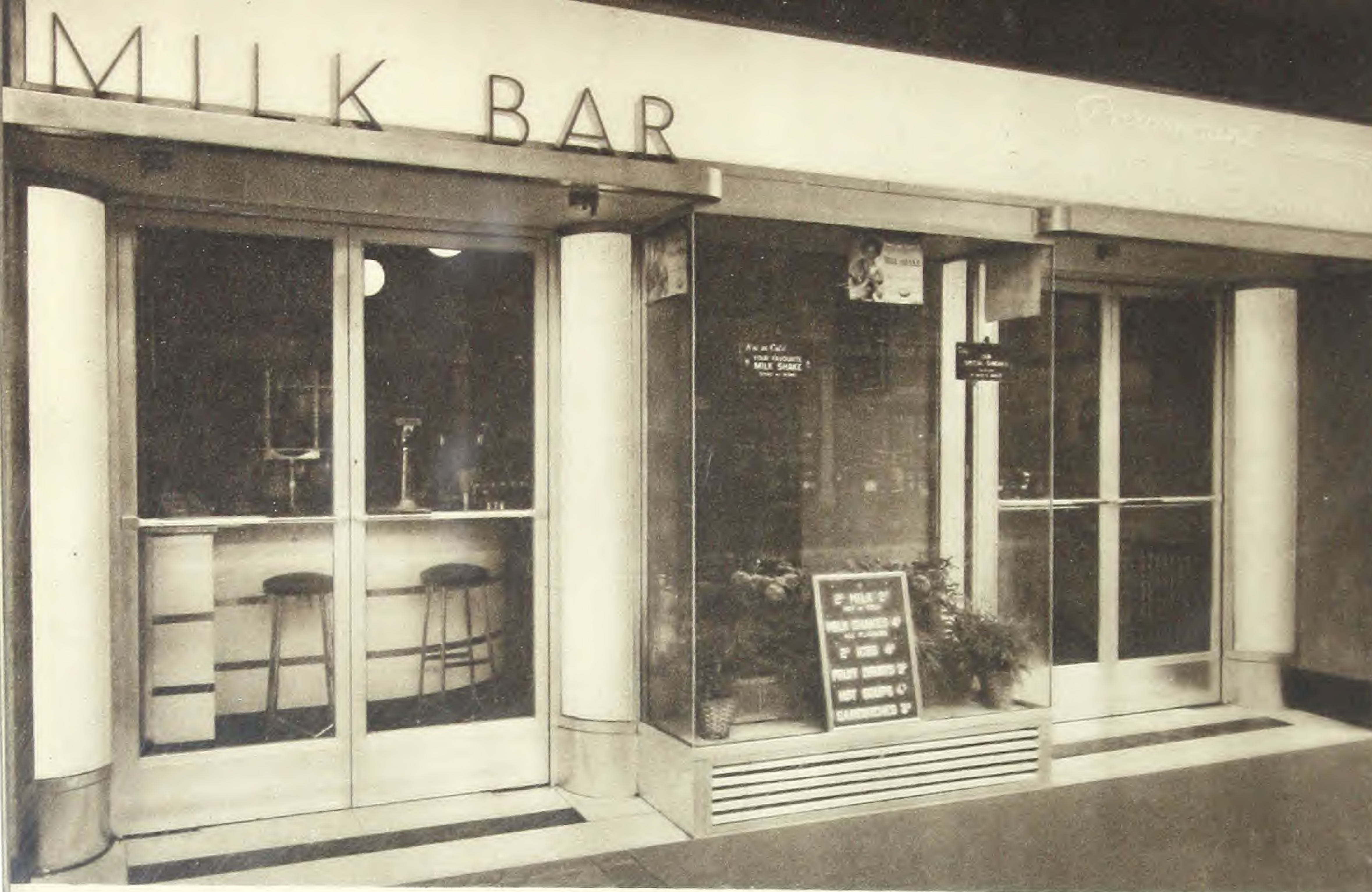




Lyons' Corner House, Coventry Street.

Architect-Designer : Oliver P. Bernard, Esq., L.R.I.B.A. Aluminium Metalwork Contractors : Evenlite Limited.
Anodising : Alumilite Limited. Fabrication : Blunt & Wray Limited.

The Brasserie in which an Oriental effect has been achieved by the use of brilliantly coloured anodised aluminium tiles.



Paramount Cinema. Milk Bar.

Architects : Frank Verity and S. Beverley, F.F.R.I.B.A. Contractors : Fredk. Sage & Co., Ltd.

Shop front in anodised aluminium, silver finish, with green anodised fascia letters and illuminated columns.



Threshers Ltd., 5, Conduit Street, London.

Architect : Gerald Lacoste, Esq., A.R.I.B.A. Contractors : Fredk. Sage & Co., Ltd.

Shop front with pink anodic aluminium sashes and entrance door. The Fascia letters are mounted on a mirror aluminium fluted frieze.



The Robert Simpson Department Store, Toronto.
Contractors : J. & E. Hall Ltd. Metalworkers: J. Starkie Gardner Ltd.
Escalators with aluminium casing.



The British
Aluminium Co.,
Ltd.

Stand at Ideal
Home Exhibition.
Office facing of
anodised alumi-
nium "Plymax"
with mouldings
of polished alu-
minium. Columns
of aluminium
tube, anodised in
colours. Fascia in
aluminium
notched bars.



Courtaulds Ltd.
Stand at British
Industries Fair,
White City, London.

Contractors : Furdecor Ltd.

Aluminium strip upon
faces of twelve vertical
projections. Aluminium
tubes for columns.





Palace Court, Bournemouth.

Architects : A. J. Seal & Partners. Contractors : Y. J. Lovell & Sons.

Doors and column sheathed in anodised aluminium "Plymax" (Venesta Ltd.) ("Architect & Building News" photograph).



Parsonage Colliery Canteen, Leigh, Lancs.

Miners' Welfare Committee's Architects : J. H. Forshaw and C. G. Kemp.

Aluminium "Plymax" used for tables, counter top and front, for reveals and soffit of counter opening, and for dado and fascia (Venesta Ltd.)



Broadcast House, Johannesburg.

Designer : M. Rene Shapshack. Architects : Cook & Cowan. Metalworkers : F. Sage & Co. (S.A.) Ltd.
Air Conditioning grille in aluminium alloy, fret cut by hand with applied motifs.



Broadcast House, Johannesburg.

Designer : M. Rene Shapshack. Architects : Cook & Cowan. Metalworkers : F. Sage & Co. (S.A.) Ltd.
Air Conditioning grille in aluminium alloy, fret cut by hand with applied motifs.



SOME EARLIER INSTALLATIONS OF ALUMINIUM AND ITS ALLOYS

(not included in this publication)

Birmingham Municipal Bank.

Safe Door Facings.

John Bolding & Sons, Ltd.

Balustrade.

Bournemouth "Daily Echo" Building.

Screens and Grilles.

Building Centre, London.

Doors.

Sir John Cass Institute, London.

Grilles.

Colosseum Theatre, Johannesburg.

Handrails.

Commonwealth Bank Building, Sydney.

Lift Doors.

Consumers Gas Co. Building, Toronto.

Spandrels, etc.

"Daily Express" Building.

Pilaster and Beam Casing, Balustrades and Glass Facing Strips.

"Finella," Cambridge.

Plymax Panelling.

Friends' Provident Building, Bristol.

Window Frames and Grilles.

Frinton-on-Sea & Dist. E.L. & P. Co.

Plymax Panelling.

Ilford Town Hall.

Column Caps and Bases.

Hay's Wharf.

Balustrade.

Lowndes Street Flats, London.

Marquise Bearer Casing.

"Mauretania" R.M.S.

Lift-shaft Enclosure and Purser's Office Grilles.

Midland Hotel, Morecambe.

Balustrade.

Mount Royal Flats.

Balustrade, Grilles, etc.

Redmaynes Ltd. & Jean Palma.

Panels and Mouldings.

South African Permanent Mutual Society
(Johannesburg).

Grilles, Doors, Balustrades, etc.

Statesman Building, Calcutta.

Lift Cages.

Taj Mahal Hotel, Bombay.

Doors Windows, Bandstand and Lift Entrance.

Theatre Chambers, Bournemouth.

Sign.

Toronto Hydro-Electric System Building.

Gallery Railing, Grilles, etc.

Unilever House.

Lift Doors and Panelling.

St. Christopher.

Statuary.

The Runner.

Statuary.

St. George and the Dragon.

Statuary.

